

### **DETAILED ACTION**

- 1.** The Action is responsive to Applicant's Amendment filed April 28, 2008 and an interview conducted August 12 and 14, 2008.
- 2.** In the interview, Mr. Bastuba (Registration 59,905) agreed to divide the application into three Inventions, elect Invention I (claims 1-5, 16 and 19) for prosecution (which is allowance with Examiner's Amendment) and withdraw Inventions II and III (claims 8-15, 18 and 21; and 7, 17 and 20) from further consideration in this Action, without traverse.
- 3.** The restriction requirement and allowance with Examiner's amendment are described below sequentially.
- 4.** Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I.** Claims 1-5, 16 and 19, drawn to application of database or data structure, classified in class 707, subclasses 104.1.
  - II.** Claims 8-15, 18 and 21, drawn to manipulating data structure, classified in class 707, subclasses 101.
  - III.** Claims 7, 17 and 20, drawn to generating database or data structure, classified in class 707, subclasses 102.

**4.1.** The inventions **I, II and III** are related as sub-combinations disclosed as usable together in a single combination. The sub-combinations are distinct from each other if they are shown to be separately usable.

In the instant case, invention **I** is related to application of data structure where XML data is analyzed, class coded in object oriented programming language is specified and, referring and registering items in business classes. The invention is an application of data structure for supporting program development.

Invention **II** is mainly related to obtain XML data and tag, specify class corresponding to XML tag, executing the class and outputting the execution result. The invention is to manipulate data structure and displaying result.

As for invention **III**, it is related to analyze XML data and tag, refer and register item in business class, execute the class and generate template source program. The invention is to generate template source program.

Because these inventions are distinct and related to different art sub-classifications, restriction for examination purposes as indicated is proper. Also please be advised this election/restriction does not preclude any further election/restriction of claim groups in each specific art above.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(l).

Applicant is further reminded that the reply to this restriction election to be completed must include an election of the invention to be examined or concurrence of an elected invention for prosecution within one month from the mailing date of this office action, even though the requirement be change to be traversed (37 CFR 1.143).

5. Based on the elected invention and after a thorough search and examination of the elected invention in present application, and further in light of the following:

prior art searched and reviewed;

Examiner's Amendments made August 14, 2008 that was authorized to amend claims 1, 6, 16, 19, 7-15, 17-18 and 20-21; and

a update search on prior art conducted in domains (EAST, NPL-ACM, Google, NPL-IEEE);

Claims 1-5, 16 and 19 (renumbered to 1-7) are allowed.

#### ***Examiner's Amendments***

6. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for this Examiner's Amendments, listed below was given on July 29, 2008 in a telephone interview with Mr. Bastuba, Registration Number 59,905.

6.1. Please amend claims 1, 6, 16, 19, 7-15, 17-18 and 20-21 as follows:

1. (Currently Amended) A method for supporting program development, said method comprising:

analyzing XML data corresponding to a form screen, and specifying a business class to be coded in an object-oriented programming language, said business class corresponding to a tag included in said XML data;

referring to a business class manager in which items of said business classes, which are classes before compilation and to be created, are registered, and judging whether an item of the specified business class has not been registered in said business class manager;

upon detecting that said item of the specified business class has not been registered in said business class manager, registering said item of the specified business class in said business class manager;

specifying a form item storing object by a tag included in said XML data corresponding to said form screen;

referring to a form item storing object manager in which items of form item storing objects to be created are registered, and judging whether an item of the specified form item storing object has not been registered in said form item storing object manager;  
and

upon detecting that said item of the specified form item storing object has not been registered in said form item storing object manager, registering said item of the specified form item storing object into said form item storing object manager.

6. (Cancelled)

16. (Currently Amended) A computer-readable medium storing a program for causing a computer to execute an information processing, said program comprising:

analyzing XML data corresponding to a form screen, and specifying a business class to be coded in an object-oriented programming language, said business class corresponding to a tag included in said XML data;

referring to a business class manager in which items of said business classes, which are classes before compilation and to be created, are registered, and judging whether an item of the specified business class has not been registered in said business class manager;

upon detecting that said item of the specified business class has not been registered in said business class manager, registering said item of the specified business class in said business class manager;

specifying a form item storing object by a tag included in said XML data corresponding to said form screen;

referring to a form item storing object manager in which items of form item storing objects to be created are registered, and judging whether an item of the specified form item storing object has not been registered in said form item storing object manager;  
and

upon detecting that said item of the specified form item storing object has not been registered in said form item storing object manager, registering said item of the specified form item storing object into said form item storing object manager.

19. (Currently Amended) An information processing apparatus, comprising:

an analyzer that analyses XML data corresponding to a form screen, and specifies a business class to be coded in an object-oriented programming language, said business class corresponding to a tag included in said XML data;

a business class storage unit storing items of said business classes, which are classes before compilation and to be created;

a checker that refers to said business class storage unit and judges whether an item of the specified business class has not been registered in said business class storage unit;

a register that registers said item of the specified business class in said business class storage unit, upon detecting that said item of the specified business class has not been registered in said business class storage unit;

an indicator that specifies a form item storing object by a tag included in said XML data corresponding to said form screen;

a judgment unit that refers to a data storage unit in which items of form item storing objects to be created are registered, and judges whether an item of the specified form item storing object has not been registered in said data storage unit; and

another register that registers said item of the data storage unit, upon detecting that said item of the specified form item storing object has not been registered in said data storage unit.

7-15. (Withdrawn)

17-18. (Withdrawn)

20-21. (Withdrawn)

***Reason for Allowable***

7. The following is the Examiner's statement of reasons for allowance:

In the Examiner's Office Action, dated November 26, 2007, the non-Final Rejection under 35 U.S.C. § 102 rejections was made mainly based on the reference over Struts: The Jakarta Project, Apache Software Foundation, 2000-2001, hereafter "Struts".

In a response to the Office Action of April 28, 2008, with respect to independent claims 1, 16 and 19, Applicant argued that Struts fails to disclose that a business class corresponds to a tag in the XML data, and Struts does not disclose a business class manager in which items of the business classes, which are classes before compilation and to be created, are registered. Concerning the Examiner's indication that the element matching patterns on page 43 of Struts correspond to the business class manager of the present invention, Applicant further argued that the element matching

patterns are used to match nested XML tags encountered in a document being parsed (page 43, first full paragraph), however, the element matching patterns of Struts do not teach or suggest that items of a business class are registered. Applicant further asserts that the business class manager is actually very different from the user's session. A user's session is typically limited to both a particular user and a particular time frame, the business class manager. Thus, because the user's session does not correspond to the business class manager, Struts fails to disclose registering an item of the business class in the business class manager, as recited in claims 1, 16, and 19.

Based on the arguments and subject matter as described above, and a further review of the subject matter of each independent claim, Examiner is persuaded that features described and highlighted below is distinctive from prior art as cited:

**referring to a business class manager in which items of said business classes, which are classes before compilation and to be created, are registered, and judging whether an item of the specified business class has not been registered in said business class manager;**

**upon detecting that said item of the specified business class has not been registered in said business class manager, registering said item of the specified business class in said business class manager;**

**specifying a form item storing object by a tag included in said XML data corresponding to said form screen;**



referring to a form item storing object manager in which items of form item storing objects to be created are registered, and judging whether an item of the specified form item storing object has not been registered in said form item storing object manager; and

upon detecting that said item of the specified form item storing object has not been registered in said form item storing object manager, registering said item of the specified form item storing object into said form item storing object manager.

An update search on prior art in domains (EAST, NPL-ACM, Google, NPL-IEEE, etc) has been conducted. The prior art searched and investigated in the domains (EAST, NPL-ACM, Google, NPL-IEEE, etc) do not fairly teach or suggest teaching of the subject matter as described and highlighted above and disclosed in each of the independent claims 1, 16 and 19.

Claims (2-5) are directly or indirectly dependent upon the independent claim 1 and are also distinct from the prior arts for the same reason.

After a search and a thorough examination of the present Application and in light of the prior art, Claims 1-5, 16 and 19 (renumbered to 1-7) are allowed.

### ***Conclusions***

8. Any comments considered necessary by Applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

### ***Contact Information***

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kuen S. Lu whose telephone number is (571)-272-4114. The examiner can normally be reached on Monday-Friday (8:00 am-5:00 pm). If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John Cottingham can be reached on (571)-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for Page 13 published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, please call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KUEN S. LU,  
Primary Examiner

August 22, 2008  
Art Unit 2167

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